AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the

application:

LISTING OF CLAIMS:

1.   (currently amended): A method for extending ~~one or more capabilities~~ a

capability of a handheld device capable of independent operation, the method comprising:

(a) ~~said handheld device~~ detecting a helper device that provides ~~at least one~~ a resource;

(b) ~~determining whether said helper device provides a selected one of said at least one~~

~~resource, said selected one of said at least one resource being selected to extend said one or more~~

~~capabilities of said handheld device, said handheld device being capable of independent~~

~~operation and said helper device being configured to control access to the selected resource;~~

(c) ~~said handheld device~~ requesting access to the ~~selected~~ resource from ~~said~~ the helper

device;

(d) transferring data to ~~said~~ the helper device from ~~said~~ the handheld device ~~in~~

~~accordance with said~~, if the helper device ~~granting said handheld device~~ grants access to the

~~selected~~ resource;

(e) ~~said helper device~~ using the ~~selected~~ resource to process the ~~transferred~~ data

transferred from the handheld device at the helper device;

wherein the ~~selected~~ resource is not adequately provided by ~~said~~ the independent

operation of ~~said~~ the handheld device.~~, and~~

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~~whereby said one or more capabilities of said handheld device are extended through the~~

~~operation of the selected resource of said helper device.~~

2.   (currently amended): The method ~~for extending one or more capabilities of a~~

~~handheld device~~ of claim 1, wherein~~: when said~~ if the helper device denies ~~said handheld device~~

access to ~~said~~ the resource, ~~repeating step (a) with a different~~ detecting another helper device that

provides the resource.

3.   (currently amended): The method ~~for extending one or more capabilities of a~~

~~handheld device~~ of claim 1, ~~further comprising: (f) the operation of the selected resource on said~~

~~data~~ wherein using the resource to process the data transferred from the handheld device is

controlled by ~~said~~ the handheld device.

4.   (currently amended): The method ~~for extending one or more capabilities of a~~

~~handheld device~~ of claim 1, further comprising:

~~(f) said helper device~~ sending an interface description from the helper device to ~~said~~ the

handheld device;

~~(g) said handheld device~~ using the interface description to ~~constructing and displaying~~

construct and display a control interface ~~from said interface description~~ at the handheld device;

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(h) said handheld device transferring a processed user interaction with said the control

interface from the handheld device to said the helper device, and

(i) said helper device interpreting the user interaction based on said selected the resource;

wherein said the handheld device operating said operates the helper device based on said

the user interaction, and

whereby new resources can be added or existing resources can be modified without

requiring modifications on said wherein adding a new resource or modifying an existing resource

does not require modifying the handheld device.

5.   (currently amended): The method for extending one or more capabilities of a

handheld device of claim 1, further comprising: (f) said helper device sending a status report of

the operation of the selected resource on said the data from the helper device to said the handheld

device, and

(g) said wherein the handheld device taking performs an action based on said the status

report.

6.   (currently amended): A method for extending one or more capabilitiesa capability

of a handheld device capable of independent operation, the method comprising:

(a) said handheld device detecting a plurality of helper devices, that each provide helper

device providing at least one resource and controlling access to the resource;

(b) determining whether any of said the helper devices is capable of providing a selected

one of said at least one that provide a first resource to said needed to extend the capability of the

handheld device, said selected one of said at least one resource being selected to extend said one

or more capabilities of said handheld device, said handheld device being capable of independent

operation and said helper devices being configured to control access to the selected resource;

(c) said handheld device requesting issuing a request for access to the selected first

resource from to each of said the helper devices that provide providing the selected first resource,

each of said the helper devices providing the first resource queuing the request if said the first

resource is temporarily unavailable; (d), wherein when the selected first resource becomes

available to one of said helper devices a first helper device having queued the request, said one

of said helper devices the first helper device granting said grants the handheld device access to

said the first resource and ignoring all queued any requests for said the first resource queued in

the other helper devices having queued the request are ignored;

(e) transferring data to said one of said helper devices the first helper device from said the

handheld device, in accordance with said one of said helper devices granting said handheld

device if the first helper device grants access to the selected first resource;

(f) said one of said helper devices using the selected first resource to process said the data

transferred from the handheld device at the first helper device;

(g) said one of said helper devices from step (e) sending an interface description from the first helper device to said the handheld device;

(h) said handheld device constructing and displaying a control interface from said the interface description at the handheld device;

(i) said handheld device processing a user interaction with said the control interface at the handheld device, and

(j) said handheld device operating said one of said helper devices the first helper device based on said the user interaction,

wherein all requests for the selected resource, in other helper devices having queued the request from said handheld device, are ignored;

wherein the selected first resource is not adequately provided by said the independent operation of said the handheld device., and

whereby said one or more capabilities of said handheld device are extended through the operation of the selected resource of said helper device.

7. (currently amended): The method for extending one or more capabilities of a handheld device of claim 6, wherein: when if a communication between said the handheld device and said one of said helper devices of step (e) the first helper device is broken before said the

handheld device has completed use of the ~~selected~~ first resource, ~~returning to step (a)~~ detecting

another helper device providing the first resource.

8.   (currently amended): The method ~~for extending one or more capabilities of a~~

~~handheld device~~ of claim 6, further comprising: ~~(g) the operation of the selected resource on said~~

controlling the processing of the data, transferred from the handheld device to the first helper

device, ~~is controlled~~ by ~~said~~ the handheld device.

9.   (canceled).

10.   (currently amended): The method ~~for extending one or more capabilities of a~~

~~handheld device~~ of claim 6, further comprising:

~~(g) said one of said helper devices from step (e)~~ sending a status report of the ~~operation~~

processing of the ~~selected resource on said~~ data using the first resource, from the first helper

device to ~~said~~ the handheld device, and

~~(h) said handheld device taking~~ performing an action by the handheld device based on

~~said~~ the status report.

11.   (currently amended): A system for extending ~~one or more capabilities~~ a capability

of a mobile device, the system comprising:

~~(a)~~ a handheld device~~, said handheld being~~ capable of independent operation; and

~~(b)~~ a plurality of helper devices, each ~~of said helper devices~~ helper device providing ~~at~~

~~least one~~ an extension service and controlling access to the at least one extension service;

wherein ~~said~~ the handheld device communicates with each of ~~said~~ the helper devices to

determine ~~whether~~ if any of ~~said~~ the helper devices is capable of providing a selected ~~one of said~~

~~at least one~~ extension service to ~~said~~ the handheld device~~, said helper devices being configured to~~

~~control access to the selected extension service~~;

wherein ~~said~~ the handheld device ~~requests~~ issues a request for the selected extension

service ~~from~~ to each of ~~said~~ the helper devices providing the selected extension service, and each

of ~~said~~ the helper devices providing the selected extension service ~~queuing~~ queue the request if

the selected extension service is temporarily unavailable;

wherein when the selected extension service becomes available to ~~one of said helper~~

~~devices~~ a first helper device having queued the request, ~~said one of said helper devices~~ the first

helper device grants ~~said~~ the handheld device access to the selected extension service, and all

other queued requests for the selected extension service, in other helper devices ~~having queued~~

~~the request from said handheld device~~, are ignored;

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wherein if each of the helper devices providing the selected extension service denies the

handheld device access to the selected extension service, the handheld device terminates

communication with each of the helper devices providing the selected extension service;

wherein ~~said~~ the handheld device transfers data to ~~said one of said helper devices~~ the first

helper device, ~~in accordance with said one of said helper devices granting said handheld device~~ if

the first helper device grants access to the selected extension service;

wherein ~~said one of said helper devices~~ the first helper device uses the selected extension

service to process ~~said~~ the data transferred from the handheld device to the first helper device ;

~~wherein when each of said helper devices denies said handheld device access to the~~

~~selected extension service, said handheld device terminates said communication with each of~~

~~said helper devices;~~

wherein ~~said one of said helper devices~~ the first helper device sends an interface

description to ~~said~~ the handheld device;

wherein ~~said~~ the handheld device constructs and displays a control interface ~~from said~~

using the interface description;

wherein ~~said~~ the handheld device transfers a ~~processed~~ user interaction with ~~said~~ the

control interface to ~~said one of said helper devices~~ the first helper device,

~~said one of said helper devices~~ wherein the first helper device interprets the user

interaction based on the selected extension service;

wherein ~~said~~ the handheld device operates ~~said one of said helper devices~~ the first helper

device based on ~~said~~ the user interaction, and

wherein the selected extension service is not adequately provided by ~~said~~ the independent

operation of ~~said first~~ the handheld device, and

~~whereby said one or more capabilities of said handheld device is extended through the~~

~~operation of the selected extension service of said helper device and~~ wherein a new extension

~~services~~ service can be added or an existing extension ~~services~~ service can be modified without

~~requiring modifications on said~~ modifying the handheld device.

12.   (currently amended): The system ~~for extending one or more capabilities of a~~

~~mobile device~~ of claim 11, ~~wherein:~~ the operation of the selected extension service on ~~said~~ the

data is controlled by ~~said~~ the handheld device.

13.   (canceled).

14.   (currently amended): The system ~~for extending one or more capabilities of a~~

~~mobile device~~ of claim 11, ~~wherein: said~~ the interface description is specified in a markup

language.

15.   (currently amended): The system ~~for extending one or more capabilities of a mobile device~~ of claim 11, further comprising: ~~(c)~~ a storage device ~~for storing~~ which stores service information for ~~said at least one~~ the extension service provided by each of ~~said~~ the helper devices.

16.   (currently amended): The system ~~for extending one or more capabilities of a mobile device~~ of claim 11, further comprising: ~~(c)~~ an access database ~~for storing~~ which stores authentication data associated with ~~said~~ the handheld device, ~~and~~

wherein ~~said~~ each of the helper devices providing the selected extension service control access to the selected extension service using ~~said~~ the authentication data.

17.   (currently amended): The system ~~for extending one or more capabilities of a mobile device~~ of claim 11, wherein: ~~said~~ the data transferred from ~~said~~ the handheld device consists of a URL.

18.   (currently amended): The system ~~for extending one or more capabilities of a mobile device~~ of claim 11, wherein: ~~said~~ the data transferred from ~~said~~ the handheld device ~~includes one or more URLs~~ comprises a URL.

19. (currently amended): The system ~~for remotely accessing a resource~~ of claim 11,

wherein~~: said~~ the handheld device includes a client for communicating with each of ~~said~~ the

helper devices, ~~said~~ the client being activated on demand.

20. (currently amended): The system ~~for remotely accessing a resource~~ of claim 11,

wherein~~: said~~ the handheld device includes a client for communicating with each of ~~said~~ the

helper devices, ~~said~~ the client running as a daemon.

21. (currently amended): The system ~~for extending one or more capabilities of a~~

~~mobile device~~ of claim 11, wherein~~: said one of said helper devices~~ the first helper device sends

a status report of the operation of the selected extension service on ~~said~~ the data to ~~said~~ the

handheld device, and ~~said~~ the handheld device ~~takes~~ performs an action based on ~~said~~ the status

report.

22. (currently amended): A system for extending ~~one or more capabilities~~ a capability

of a handheld device capable of independent operation, the system comprising:

~~(a) a~~ first means in the handheld device for accessing ~~at least one~~ a resource of a local

device;

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~~(b) a~~ second means <u>in the local device</u> for controlling access to ~~said at least one~~ <u>the</u> resource; <u>and</u>

~~(c) a~~ third means <u>in at least one of the handheld device and the local device</u> for communicating between ~~said~~ <u>the</u> first means and ~~said~~ <u>the</u> second means;

wherein ~~said~~ <u>the</u> first means uses ~~said~~ <u>the</u> third means to determine ~~whether said~~ <u>if the</u> second means is capable of providing ~~a selected one of said at least one~~ <u>the</u> resource to ~~said~~ <u>the</u> first means;

wherein ~~said~~ <u>the</u> first means uses ~~said~~ <u>the</u> third means to <u>issue a</u> request ~~said selected~~ <u>for</u> <u>the</u> resource from ~~said~~ <u>the</u> second means, ~~said~~ <u>the</u> second means queuing the request if ~~said~~ ~~selected~~ <u>the</u> resource is temporarily unavailable;

wherein ~~when said selected~~ <u>if the</u> resource becomes available to ~~said~~ <u>the</u> second means, ~~said~~ <u>the</u> second means grants ~~said~~ <u>the</u> first means access to ~~said selected~~ <u>the</u> resource, and any other queued requests for ~~said selected~~ <u>the</u> resource ~~from said~~ <u>issued by the</u> first means <u>to other</u> <u>local devices</u> are ignored;

wherein ~~said~~ <u>the</u> first means uses ~~said~~ <u>the</u> third means to transfer data to ~~said~~ <u>the</u> second means, ~~in accordance with said~~ <u>if the</u> second means ~~granting said~~ <u>grants the</u> first means access to ~~said selected~~ <u>the</u> resource;

wherein ~~said~~ <u>the</u> second means uses ~~said selected~~ <u>the</u> resource to process ~~said~~ <u>the</u> data;

wherein said the second means uses said the third means to send an interface description to said the first means;

wherein said the first means constructs and displays a control interface from said using the interface description;

wherein said the first means uses said the third means to transfer a user interaction with said the control interface to said the second means;

wherein said the second means interprets the user interaction based on said selected the resource;

wherein said the first means uses said the third means to operate said the second means based on said the user interaction; and

wherein said first means is mobile and capable of independent operation;

wherein said selected the resource is not adequately provided by said the independent operation of said the first means., and

whereby said one or more capabilities of said first means is extended through the operation of the selected resource of said second means and new resources can be added or existing resources can be modified without requiring modifications on said handheld device.

23.   (currently amended): The system ~~for extending one or more capabilities of a handheld device~~ of claim 22, wherein~~:~~ the operation of ~~said~~ the resource on ~~said~~ the data is controlled by ~~said~~ the first means using ~~said~~ the third means.

24.   (canceled).

25.   (currently amended): The system ~~for extending one or more capabilities of a handheld device~~ of claim 22, wherein~~: said~~ the interface description is specified in a markup language.

26.   (currently amended): The system ~~for extending one or more capabilities of a handheld device~~ of claim 22, wherein~~:~~ the request for ~~said~~ the resource includes capability information associated with ~~said~~ the first means, and

wherein ~~said~~ the capability information is used by ~~said~~ the second means to determine the appropriate interface description to send to ~~said~~ the first means.

27.   (currently amended): The system ~~for extending one or more capabilities of a handheld device~~ of claim 22, wherein~~:~~ the request for ~~said~~ the resource from ~~said~~ the first means includes the type of the data to be transferred and the size of ~~said~~ the data.

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28. (currently amended): The system ~~for extending one or more capabilities of a handheld device~~ of claim 22, wherein~~: said~~ the data transferred from ~~said~~ the first means consists of a URL.

29. (currently amended): The system ~~for extending one or more capabilities of a handheld device~~ of claim 22, wherein~~: said~~ the data transferred from ~~said~~ the first means ~~includes one or more URLs~~ comprises a URL.

30. (currently amended): The system ~~for extending one or more capabilities of a handheld device~~ of claim 22, wherein~~: said~~ the first means includes a client for accessing ~~said at least one~~ the resource, ~~said~~ the client being activated on demand.

31. (currently amended): The system ~~for extending one or more capabilities of a handheld device~~ of claim 22, wherein~~: said~~ the first means includes a client for accessing ~~said at least one~~ the resource, ~~said~~ the client running as a daemon.

32. (currently amended): The system ~~for extending one or more capabilities of a handheld device~~ of claim 22, wherein~~: said~~ the second means uses ~~said~~ the third means to send a

status report of the operation of ~~said~~ the resource on ~~said~~ the data to ~~said~~ the first means, and ~~said~~

the first means ~~takes~~ performs an action based on ~~said~~ the status report.